

to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention." See Action page 2, item 3. Addressing the claim language "that is designed not to hybridize...", the Examiner contends that a negative limitation must have basis in the original disclosure, and that the absence of a positive recitation is not basis for an exclusion. See Action, page 3, item 3. Applicant respectfully traverses this rejection.

The language "a first tag that is designed not to hybridize to said adjacent sequence regions when the first target-specific portion is sequence specifically hybridized to the first target nucleic acid sequence" of claim 1 is supported by Figures 4B and C. As discussed in the Amendment submitted on October 9, 2002, Figure 4C does in fact show a probe comprising such a tag. Moreover, Figure 4B also shows a probe comprising a tag that is designed not to hybridize to the adjacent sequence regions when the target-specific portion is sequence specifically hybridized to the target nucleic acid sequence. See Application, Figure 4B. In Figure 4B, the target-specific portions are shown sequence specifically hybridized to a target nucleic acid sequence (100). The target-specific portions are parallel to the target nucleic acid sequence, demonstrating sequence-specific hybridization. In contrast, the tags are angled away from the nucleic acid sequence (100). The angle of the tags relative to the nucleic acid sequence (100) clearly shows tags that are designed not to hybridize to the adjacent sequence regions when the target-specific portion is sequence specifically hybridized to the target nucleic acid sequence.

The Examiner contends that Figure 4C does not show such a tag. The Examiner states that "[t]he specification and figures discuss and demonstrate what the tag

FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com

sequence does hybridize (i.e., the tag complement)." See Action page 3, item 3. Presumably, the Examiner contends that the specification and figures fail to discuss that the tag does not hybridize to the adjacent regions. It is not clear why the Examiner contends that Figure 4C does not show a tag that is designed not to hybridize to the adjacent sequence regions when the target-specific portion is sequence specifically hybridized to the target nucleic acid sequence. Figure 4C, like Figure 4B discussed above, clearly shows such tags.

Thus, claim 1 is supported by Figures 4B and C. Applicant respectfully requests reconsideration and withdrawal of the rejection under 35 U.S.C. § 112, first paragraph.

Rejection Under 35 U.S.C. § 112, second paragraph

The Examiner rejects claims 1 to 12 under 35 U.S.C. § 112, second paragraph, as allegedly "being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention." See Action page 3, item 5. Applicant respectfully traverses this rejection.

The Examiner bears the burden of establishing why a claim is indefinite. Here, the Examiner fails to identify why the claims are allegedly indefinite. Consequently, Applicant respectfully requests reconsideration and withdrawal of the rejection under § 112, second paragraph.

Rejection Under 35 U.S.C. § 102(b)

The Examiner rejects claims 1 to 3, 5, and 8 to 12 under 35 U.S.C. § 102(b) as allegedly being anticipated by Grossman et al. (Grossman). See Action at page 3, Item 6. Applicant respectfully traverses this rejection.

FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com

To find anticipation, the Examiner must establish that a prior art document contains all of the elements of the claimed invention. See MPEP § 2131. Each and every claim element must be expressly or inherently described in a single prior art reference. See MPEP § 2131. Here, the Examiner fails to establish that Grossman contains every element of the rejected claims.

The Examiner argues that "the added amendment does not provide any structural limitation on the tag or the tag complement or the regions that flank the target nucleic acid." See Action, page 7. The Examiner also states, "Applicant is attempting to define the structure of the claimed composition based on a target sequence which is not a structural limitation of the claim, it is merely a hypothetical sequence which applicant intends the claimed complexes to hybridize to." See *Id.*

The language "a first tag that is designed not to hybridize to said adjacent sequence regions when the first target-specific portion is sequence specifically hybridized to the first target nucleic acid sequence" structurally defines the tag. The target-specific portion hybridizes to the target nucleic acid sequence. The tag is designed not to hybridize to the adjacent sequence regions when the target-specific portion is sequence specifically hybridized to the target nucleic acid sequence. This structural definition of the probe distinguishes it from a probe comprising a tag that can hybridize to the adjacent regions. Grossman does not make this structural distinction. In Grossman, the alleged tag (24) may or may not hybridize to the alleged target that is not depicted in Figure 1A. Because Grossman does not suggest a tag that is designed not to hybridize to an adjacent sequence region, Grossman does not contain all of the elements of claim 1.

FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com

Accordingly, the Examiner fails to establish that Grossman anticipates amended claim 1 under § 102(b). Claims 2, 3, 5, and 8 to 12 all depend from claim 1. Thus for at least the reasons discussed above for claim 1, the Examiner fails to establish that Grossman anticipates those dependent claims under § 102(b).

Because the Examiner fails to establish anticipation of claims 1 to 3, 5, and 8 to 12 for at least the reasons discussed above, Applicant need not address the Examiner's contentions concerning other elements of those claims. By not addressing those contentions, Applicant in way acquiesces to the contentions.

Rejection Under 35 U.S.C. § 103(a)

The Examiner rejects claim 7 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Grossman and Buchardt et al. (Buchardt). See Action at page 5, item 8.

For a proper obviousness rejection, the Examiner must establish that the prior art would have suggested to one of ordinary skill in the art all of the claim limitations. See MPEP § 2143.03.

The Examiner states that Grossman does "not teach a composition in which the first tag complement portion comprises PNA." See Action, page 6, item 8. The Examiner contends that Buchardt teaches PNA probes. See Action, page 6, item 8.

As discussed above, Grossman does not contain all of the elements of claim 1. Buchardt does not remedy that deficiency of Grossman. Claim 7 depends from claim 1. Thus, for at least the reasons discussed above, the combination of Grossman and Buchardt does not contain all of the elements of claim 7. Consequently, the Examiner fails to establish a *prima facie* case of obviousness of claim 7.

FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com

Because the Examiner fails to establish obviousness of claim 7, for at least the reasons discussed above, Applicant need not address the Examiner's contentions concerning other elements of claim 7. By not addressing those contentions, Applicant in no way acquiesces to those contentions.

Applicant respectfully requests reconsideration and withdrawal of the 35 U.S.C. § 103(a) rejection over Grossman and Buchardt.

Conclusion

Applicant respectfully asserts that the application is in condition for allowance and requests issuance of a Notice of Allowance. If the Examiner does not consider the application to be in condition for allowance, applicant requests that she call the undersigned at (650) 849-6620 to set up an interview.

Please grant any extensions of time required to enter this response and charge any additional required fees to our Deposit Account No. 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, L.L.P.

By: 

M. Paul Barker
Reg. No. 32,013

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FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com